SSD and the CDR

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4.4 SSD

4.4.1 SSD Upgrade Design
4.4.2 SSD Upgrade
4.4.3 Integration Issues
4.4.4 Staging Plan
4.4.5 Institutional Responsibilities

4.4.1 SSD Upgrade Design

- Silicon description
- Digitization of the data at the end of the ladder
- Slow Controls - Michael
- Power
- DAQ1000 - Michael
- Cooling - ???

4.4.2 SSD Upgrade

- Current status
- Refurbishing silicon
- Upgrade for readout electronics
- Design of cooling system
- LV and Power
- Slow controls
- Incorporation into DAQ1000 data stream
- Cable Design

4.4.3 Integration Issues

- Resources for integration
- Alignment mounts on the Cone
- Cable paths on the cone
- Space allocation
- Interface with the FGT
- Design responsibilities for cables on the cone
- Cable breakout out at the cone boundary
- Power (LV, Bias, feedback)
- Data fibers
- Slow Control
- Location of the RDO
  - End of Magnet or
  - Platform√
- Space on the Platform
- Cables from cone to the platform
- Rack space
- Cooling
- Triggering

4.4.4 Staging Plan

- Three ladder prototype test
  - This needs to be decided
- Installation of full detector

4.4.5 Institutional

- Management structure
- STAR commitment
- Resources required
- Cooling engineer
- Slow control software implementer
- Digital designer to incorporate slow controls into fiber optical path used for data
- Electronic engineering for readout upgrade
- BNL
- LBNL
- Software responsibility
- Other collaboration contributed resources
- HFT responsibilities for interface

Others Sections

- *4.5* Integration into STAR
  - *4.5.6* SSD
- *4.6* Software
  - ????
- *4.7* Cost and Schedule
  - ???